Specification Amendments Filed 07/31/06 with National Stage Application of PCT/US2005/002908

1. On page 1, after the title and before the heading "Field Of The Invention" please insert the following new paragraph including the heading:

Cross-Reference to Related Applications

This is a national stage application of PCT/US2005/002908, filed January 31, 2005, which in turn claims priority to U.S. Provisional Patent Application No. 60/540,799, filed January 30, 2004.

2. Please amend the paragraph having the heading "Summary of the Invention" and beginning at line 17 on page 3 and ending at line 2 on page 4 as follows:

In one aspect, the invention provides an optical apparatus for providing light having a selected linear polarization having a selected polarization ratio. As used herein, "light" is meant to include all electromagnetic radiation, whether visible or not, that those of ordinary skill in the art would recognize can be used in connection with the invention. In one embodiment, an apparatus according to the invention can comprise a length of optical fiber. The fiber can have a core and a cladding disposed about the core. The fiber can comprise a rare earth for providing light having a first wavelength responsive to receiving pump light having a second wavelength that is different than the first wavelength. If the length of optical fiber were placed in a first position wherein the length of fiber is substantially linearly oriented, the fiber could propagate (e.g., at the first wavelength) a fundamental mode and at least one higher order mode, such as, for example, a plurality of higher order modes, and the apparatus could provide light having a first polarization ratio for light of the selected linear polarization and an M^2 parameter. In one embodiment, the fiber is positioned in a second position that increases the bend loss in the fiber relative to said first position such that, responsive to the increased bend loss, the apparatus can provide light having a reduced M^2 parameter relative to the M^2 parameter as well as a second polarization ratio for the selected linear polarization that is

increased relative to the first polarization ratio, the ~~increase~~ second polarization ratio being at least 6 dB greater that the first polarization ratio. When the fiber is in the second position the apparatus can provide a slope efficiency that is at least 50% of the ratio of the second wavelength to the first wavelength.

3. Please amend the paragraph beginning at line 33 on page 20 and ending at line 3 on page 21 as follows:

The diameter or range of diameters can depend on the NA of the fiber. Lower NA's tend to allow the use of large diameters. Larger diameters are preferable, as less physical stress is imposed on the optical fiber. High physical stress can cause microcracks to propagate and lead to an early failure of the optical. We note that the ~~diameters taught is U.S. 6,496,301 tend to be smaller than those with which the~~ present invention can operate with diameters that are larger than those taught in U.S. 6,496,301, which tend to be smaller.

4. Please amend the paragraph beginning at line 24 on page 24 and ending at line 7 on page 25 as follows:

FIGURE 5A illustrates another example of an optical fiber **300** suitable for use as the fiber **120** shown in FIGURE 3. The optical fiber **300** includes a core **302**, a first barrier region **304** disposed about the core **302**, and an elliptical stress inducing ~~regions~~ region **312** disposed about and completely surrounding the first barrier region **304** and the core **302**, and a second barrier region **314** disposed about the elliptical stress inducing region **312**. The jacket **318** is disposed about the second barrier region **314**. At least the first barrier region **304**, and preferably the elliptical ~~cladding~~ stress inducing region **312** and the second barrier region **314** comprise an index of refraction that is lower than an index of refraction comprised by the core **302**. Accordingly, at least one of the first barrier region **304**, elliptical stress inducing region **312** and the second barrier region **314** acts as a cladding of the fiber **300** such that the core **302** can guide optical energy. The first barrier region **304**, elliptical stress inducing ~~regions~~ region **312** and possibly the

second barrier region **314** can have substantially the same index of refraction and act as the cladding of the fiber **300**, such that the fiber **300** comprises a step refractive index profile, such as that shown in FIGURE 4C. The index of refraction of a region can be constant throughout that region. See, for example, fiber described in U.S. Patent No. 4,896,942, described elsewhere herein. The fiber shown in FIGURE 5A can also be designed to be a polarizing fiber by appropriate selection of the indices of refraction of the various regions and the size of those regions. See, for example U.S. Patent No. 5,056,888.